

Abstract

Apparatus and methods are disclosed for automated semiconductor device probing. Apparatus is disclosed for automated semiconductor device probing, the apparatus comprising: a probe assembly including an electrical probe for making an electrical connection with a semiconductor device, the probe assembly having a first surface and a second surface in opposition to one another; a machine vision system having a camera for locating the semiconductor device, the machine vision system having a first contact surface adjacent the first surface of the probe assembly, the first contact surface having a first attachment mechanism to selectively attach together the probe assembly and the machine vision system; and a semiconductor support fixture for positioning the semiconductor device, the semiconductor support fixture having a second contact surface adjacent the second surface of the probe assembly, the second contact surface having a second attachment mechanism to selectively attach together the probe assembly and the semiconductor support fixture. A method is disclosed for automated semiconductor device probing, the method comprising: providing apparatus for automated semiconductor device probing, the apparatus comprising: a

probe assembly including an electrical probe for making an electrical connection with a semiconductor device, the probe assembly having a first surface and a second surface in opposition to one another; a machine vision system having a camera for locating the semiconductor device, the machine vision system having a first contact surface adjacent the first surface of the probe assembly, the first contact surface having a first attachment mechanism to selectively attach together the probe assembly and the machine vision system; and a semiconductor support fixture for positioning the semiconductor device, the semiconductor support fixture having a second contact surface adjacent the second surface of the probe assembly, the second contact surface having a second attachment mechanism to selectively attach together the probe assembly and the semiconductor support fixture; locating the semiconductor device positioned on the semiconductor support fixture with the machine vision system; guiding the movement of at least one of the probe assembly and the semiconductor support fixture so as to position a contact portion of the semiconductor device and the electrical probe in alignment with one another; and moving at least one of the probe assembly and the semiconductor support fixture toward the other of the at

least one of the probe assembly and the semiconductor support fixture so as to position the electrical probe and the contact portion of the semiconductor device in electrical connection with one another.